

Top Management Dynamics and Audit Quality: A Comprehensive Bibliometric Analysis

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ARTICLE INFO	ABSTRACT
<p>Article History: Received: 28 Sep 2024 Revised: 19 Oct 2024 Accepted: 03 Dec 2024 Available Online: 19 Dec 2024</p> <p>DOI: https://doi.org/10.56536/ijmres.v14i4.707</p> <p>Keywords: Bibliometric analysis, Biblioshiny, Audit quality, TMT characteristics, Corporate governance</p> <p>JEL Classification: Q56, Q01, G32, D23, D73</p>	<p>This article investigates the connection among Top Management Team (TMT) characteristics and audit quality, focusing on how leadership attributes such as expertise, diversity, tenure, and risk management influence corporate governance and audit outcomes. Given the increasing demands for transparency, accountability, and robust financial reporting, the involvement of TMTs in guaranteeing audit quality has become more critical. We reviewed 255 articles published between 1996 and 2021 to analyze key trends, core publications, and influential themes related to TMT characteristics and audit quality. The study uses bibliometric analysis tools, including co-occurrence networks and thematic maps, to uncover the central themes in the literature. Audit quality, corporate governance, and audit fees emerged as dominant topics, while emerging areas such as board quality and internal audit quality suggest new opportunities for future research. The findings underscore the pivotal role of TMT characteristics in shaping governance practices, demonstrating that strategically shaping TMT composition through board size, diversity, and expertise can significantly enhance audit quality, reduce aggressive earnings management, and improve overall governance frameworks. This research provides practical insights for industries, particularly large enterprises and the banking sector, where audit quality is critical for maintaining financial stability. It also contributes to the academic literature by underscoring the interconnectedness of TMT characteristics and audit quality, offering valuable recommendations for scholars and practitioners. Organizations can optimize leadership structures to ensure stronger governance and reliable financial reporting by understanding how TMT attributes influence audit processes.</p>

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INTRODUCTION

In today's globalized business environment, the importance of audit quality has grown significantly due to increasing demands for transparency, accountability, and sound corporate governance (Ali et al., 2024). Quality audits ensure the dependability of financial reports, which instill confidence in the accuracy of financial reporting and give stakeholders peace of mind (Arslan et al., 2021). Inadequate audits, on the other hand, can lead to financial scandals, loss of investor confidence, and regulatory sanctions (Ball, 2009; Ullah, 2022). Amid rising corporate complexities and scrutiny, understanding the factors that influence audit quality has become a

critical area of research (Arslan et al., 2023). One such influential factor lies in the characteristics of the Top Management Team (TMT), the group of executives responsible for steering corporate strategy and governance (Arslan et al., 2022; Sultan et al., 2021). Given their pivotal role in decision-making, TMT characteristics directly influence governance practices, which, in turn, affect the quality of audits conducted within an organization (Osei Bonsu et al., 2024).

In order to remove the agency problem between leaders and shareholders as well as between lenders and investors, audit services are essential for decreasing the smoothness of information (Jensen et al., 1976). Although audit quality plays a significant role in corporate governance, there are some components of corporate governance that audit quality can replace (DeFond, 1992). There are many definitions of the term audit quality by different people. (DeAngelo, 1981) gives two distinct definitions for audit quality. The error must be found in the first place, and then it has to be disclosed. An auditor's capacity to identify mistakes in accounting records is enhanced by audit quality, indicating that a competent auditor offers precise information on the company's worth (Titman et al., 1986). The likelihood of error-free financial records is another way to characterize audit quality (Palmrose, 1988). A quality audit involves an auditor's skills to identify and remove mistakes and falsifications in the business's earnings (Davidson et al., 1993). Analyzing audit quality is a very challenging task. Particularly for creditors and investors, the audit quality is not immediately apparent (Yaseen et al., 2023). Audit quality is a factor in finding aggressive earning management in the company (Ramos-Meza et al., 2021). Higher-quality auditors need higher standards to protect their brand name and position. Higher audit quality standards are believed to lead to less earning management.

The statutory audit is necessary for the shareholders to keep an eye on the company's management, which makes this research crucial. And it is only possible when the auditors can detect the errors without any disturbance from management, so large companies hire more independent directors in their organizations and in audit committees to improve the objectivity of relationships between auditors and management.

Two views on outside directorship and its impact on domestic enterprises were put up in this study (Geletkanycz et al., 2011). According to an integration perspective, the CEO or CFO with an outside directorship could elect an associated auditor via their connections with the organization since a known auditor can decrease the unreliability of a new auditor and enhance working relationships and communication. Because they might impact the choice of auditor compensation and reelection in both home and related companies, the CEO/CFO can still be ready to hire an associated auditor even from the agency perspective (Shropshire, 2010). Previous studies indicate that raising the bar for audit quality exacerbates agency issues between the company and outside financing sources (Fama, 1980). Many research topics focus on the relationship between management and capital providers (DeFond, 1992). research carried out in USA and UK show that boards in which independent directors are the majority lead to lower earning management (Francis et al., 1988). However, some prior studies have not found that boards and independent audit committees help monitor the firm's governance (Pittman et al., 2004). According to CFOs, 11

criteria determine the quality of an audit. These 11 factors include reputation, technical credentials, industry experience, audit team experience, regional coverage, audit prices, working connections, meeting deadlines, ethical standards, and the breadth of services provided (Willenborg, 1999). Corporate governance refers to the framework that governs the direction and management of businesses (Beasley, 1996). Previous studies have shown that our internal governance and audit quality improve only if we hire many independent directors and auditors. Still, our study suggests that if we employ connected directors and auditors in audit committees, they also can improve the quality of audit work and internal governance as described in our theories (Peasnell et al., 2000).

This study shows the interconnection between the top management teams' characteristics and audit quality, fees, and services. Internal corporate governance and corporate earnings management are also part of our research. We describe how the directors of the firm and independent directors help boost the quality of audits in detecting aggressive earnings management.

Our study impacts industries, enterprises, and the banking sector. Top management team characteristics include age, functional background, risk management, and the reputation of directors. These factors have a significant impact on how well businesses succeed. Board size is a component of top management teams' characteristics, so in our study, we describe that if the board size is large in committees, they perform well. Our research also describes risk management, which impacts the industry. The TMT directly impacts future sustainability and entrepreneurial spirit, which are critical factors in company growth and decision-making. TMT's strategic decisions and tactics are shaped by its variety, values, experience, and cognitive capacity in a challenging business environment. Now, competent persons prepare financial statements in every organization, so there is a need to audit or check these statements. Audit quality significantly influences a company's success, bank stability, earnings management, etc. If the audit is of excellent quality, the firm's performance improves.

Aggressive earnings management is removed with the help of audit quality, and the performance of banks remains stable because of audit quality. In large industries and the banking sector, audit quality is needed. So, our study is helpful for these sectors; with the help of this study, organizations can increase the quality of audits by increasing the members in committees and board size. If the quality of audits is high in organizations, auditors can detect errors quickly, expanding the organization's performance.

For our research, we use the following questions to help find the influential aspects of TMT characteristics and audit quality and trends, as well as key themes and objectives of and future trends of our study. This study answered the following questions.

1. What are the influential aspects of TMT characteristics and audit quality?
2. Which major themes and patterns are prevalent?
3. What are our study's main objectives, tools, and techniques?

We address questions through a comprehensive descriptive analysis, pinpointing key sources, researchers, nations, studies, and affiliations in TMT characteristics and audit quality. We employ metrics such as source impact, total citations, and yearly internet publications to identify core sources. Bradford's Law categorizes sources into a highly productive "nuclear zone," a moderately productive middle zone, and a low productivity zone. We recommend leading nations and collaboration based on publication frequency and citation counts. We utilize advanced tools like co-occurrence and thematic maps to uncover research areas. Keywords Plus are employed to assess the study's knowledge structure, while 'biblioshiny' facilitates bibliometric analysis and the identification of research streams. The purpose of this investigation is to present a bibliometric analysis of the research on audit quality and top management team characteristics. The audit fees, corporate governance, and management earnings are also part of our study. We have divided our study into different groups for a better understanding. Another goal of this study is to find the core publications, researchers, nations, and institutions. To fulfill this objective, we use 'biblioshiny', descriptive analysis of documents and Bradford's law global citation.

LITERATURE REVIEW

Top management plays a pivotal role in shaping organizational outcomes, influencing corporate governance, decision-making, and the overall quality of audits. Effective leadership ensures transparency, accountability, and robust oversight, which are critical factors for achieving high audit quality. Prior research highlights that top management dynamics, including leadership styles, management diversity, and governance mechanisms, significantly impact the integrity and reliability of audit processes. The connection between TMT characteristics and audit quality is established on premise that the composition and attributes of leadership teams, such as expertise, diversity, and tenure, can significantly impact the governance and oversight of financial reporting processes (Al-Matari, 2022). TMTs with a solid financial background and diverse perspectives are likelier to implement stringent internal controls, support influential audit committees, and ensure robust audit processes (Arslan et al., 2022). Additionally, TMT tenure indicates leadership stability can provide the continuity needed for consistent governance practices, further enhancing audit quality. This interconnection between TMT composition and audit outcomes underscores the importance of examining how specific TMT attributes can influence the integrity and thoroughness of the audit function, ultimately shaping corporate governance and financial accountability (Gerged et al., 2023).

A company's directors' primary duty is overseeing financial reporting. Additionally, they evaluate the standard of corporate governance (Li et al., 2023). They also evaluate the corporate governance standard (Haniffa et al., 2006). A governance structure is the structure of organizations that set rules, procedures, and other informational guidelines. Organizations with great structure can meet their goals quickly. The reputation of directors is an essential intangible asset of the firm that helps to perform better in the future (Roberts et al., 2002). When the firms have a good reputation, they can retain their profitability over time. Reputation is an asset that works as security (Klein et al., 1981). Managerial overconfidence is also a part of TMT characteristics that leads the managers to

use aggressive accounting methods to forecast, and sometimes it becomes unreasonable overconfidence (Mahmood et al., 2023). Overconfident managers have high risks because they invest more in wealth, and their reputation depends upon the firm's performance. An organization's ability to manage risk is critical to its success, and the CEO is in charge of putting risk management into practice inside the company (Lutz, 2015).

This study uses bibliometric tools to explore trends, influential aspects, and research themes related to TMT characteristics and audit quality. By identifying key publications, authors, and global contributions, It aims to thoroughly comprehend how TMT dynamics shape audit quality and enhance corporate governance frameworks.

RESEARCH METHODOLOGY

Based on an expanding trend in recent accounting and business management research, we employ a bibliometric analysis model to find and assess audit quality and TMT studies to examine important elements such as audit quality and TMT analysis streams, themes, keywords, prominent researchers, journals, and nations engaged in audit quality and TMT related research. Importantly, we use descriptive analysis to address the study's concerns and pinpoint key sources, writers, nations, publications, and associations in audit quality and TMT research. Core sources and authors are identified using source impact, total citations (TC), and net publications (NP) annually. Top nations and affiliations are determined by publication frequency and total citations.

Finding the primary audit quality and TMT themes is essential for integrating research streams drawn from the development of audit quality and TMT-related subjects and for guiding the direction of future research projects. Co-occurrence maps, thematic maps, and thematic evolution are some of the technological instruments used for this aim. The R-program's bibliometric tools, keywords, keywords plus, and "biblioshiny," are used to identify research streams and topics.

There are two parts to the composition of bibliometric data. Examining the research articles' reliable sources is the first step. The second is the thorough inquiry for collecting data holistically, which includes all pertinent paper sources. The primary sources (databases) from which pertinent published publications have been extracted are Google Scholar, Scopus, Emerald, and the Web of Science. Additionally, the search query that was created after adding filters to meet the goals and get the best results is as follows. The final query used was:

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TITLE-ABS-KEY ( "Top management team" OR "TMT" OR "CEO" OR "CFO" OR "director"
OR "executive" OR "manager*" ) AND TITLE ( "audit quality" OR "audit fee*" OR "audit opn*"
OR "audit effort*" OR "audit hour*" OR "BIG4" ) AND ( LIMIT-TO ( LANGUAGE, "English"
) )**
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Using titles, abstracts, and keywords from every article on Scopus, the aforementioned query looks for terms enclosed in inverted commas. Following that, the first search results are limited to peer-reviewed English-language journals covering the following topics: economics, econometrics and finance, social sciences, business management and accounting, environmental sciences, and

energy. After the initial filters produced 255 items, the titles and abstracts of the publications were independently examined. Because the existence of both variables in the abstract is a requirement for inclusion criterion, a significant number of publications were further eliminated from the list of articles. After reviewing the abstracts and titles, 100 papers were selected. As seen in Fig. 1, irrelevant articles are eliminated following consultation with an expert panel. Tools such as VOSviewer and Bibliometrix (R package) were employed for bibliographic data processing. Citation analysis was performed to identify influential articles and authors, co-authorship analysis examined collaboration patterns, and keyword co-occurrence analysis mapped frequently used keywords and research themes. Thematic mapping was used to analyze emerging trends and relationships within the literature. The bibliometric results were visualized using tools like VOSviewer. These visualizations included collaboration networks mapping co-authorship patterns, keyword co-occurrence networks highlighting key themes and relationships, and thematic maps identifying research clusters and emerging trends. Finally, the findings were interpreted to draw meaningful insights into the relationship between TMT characteristics and audit quality. This process provided an in-depth understanding of research trends, influential studies, and thematic areas within the selected literature.

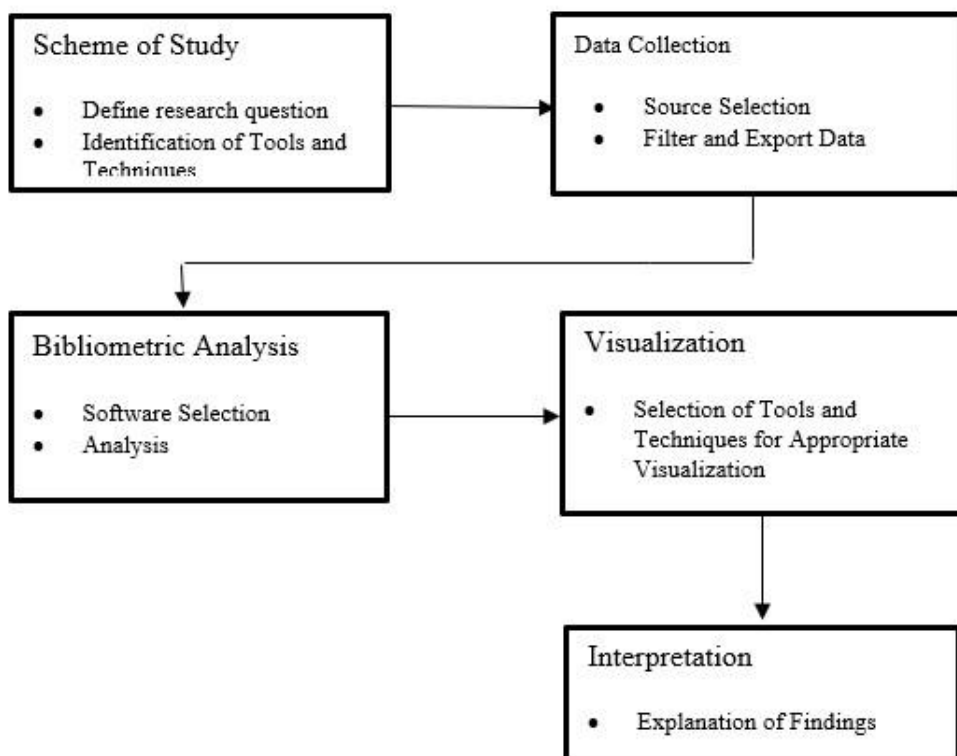


Figure 1. The procedure of bibliometric analysis

RESULT AND DISCUSSION

Bibliometric analysis is a research method that uses statistical and mathematical techniques to analyze patterns in academic literature, such as publication trends, citation networks, and authorship collaboration, to learn more about the framework and development of a research field. The tool below the package, called Biblioshiny, is made for non-programmers to present possibilities for comprehensive scientometric and bibliometric analysis. It offers various choices categorized by sources, documents, conceptual, social, and intellectual structures. It makes it possible to get numerous results in the form of graphs and tables that are not possible with other tools. Before we proceed with the analysis, Table 1 presents the descriptive features of our study in an easily understood manner. We utilize 265 authors and 33 additional keywords in our final 99 papers. Our research period spans from 2000 to 2021. 238 writers wrote these texts; only 12 articles have a single author. With a document-per-author ratio of 0.416, around three writers have created a single document on average.

Table 1: Descriptive features of TMT characteristics and Audit Quality

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2000:2021
Sources (Journals, Books, etc.)	63
Documents	99
Average years from publication	4.87
Average citations per document	10.95
Average citations per year per doc	1.443
References	5628
DOCUMENT TYPES	
Article	96
conference paper	3
DOCUMENT CONTENTS	
Keywords Plus (ID)	33
Author's Keywords (DE)	265
AUTHORS	
Authors	238
Author Appearances	254
Authors of single-authored documents	12
Authors of multi-authored documents	226
AUTHORS COLLABORATION	
Single-authored documents	12
Documents per Author	0.416
Authors per Document	2.4
Co-Authors per Documents	2.57
Collaboration Index	2.6

The annual scientific production is showed in the figure 2. From 2000 to 2010, the number of published articles remained minimal, with sporadic publication activity. However, starting from 2010, a notable increase in articles is observed, peaking significantly around 2019. This surge suggests a growing interest in the topic during the late 2010s.

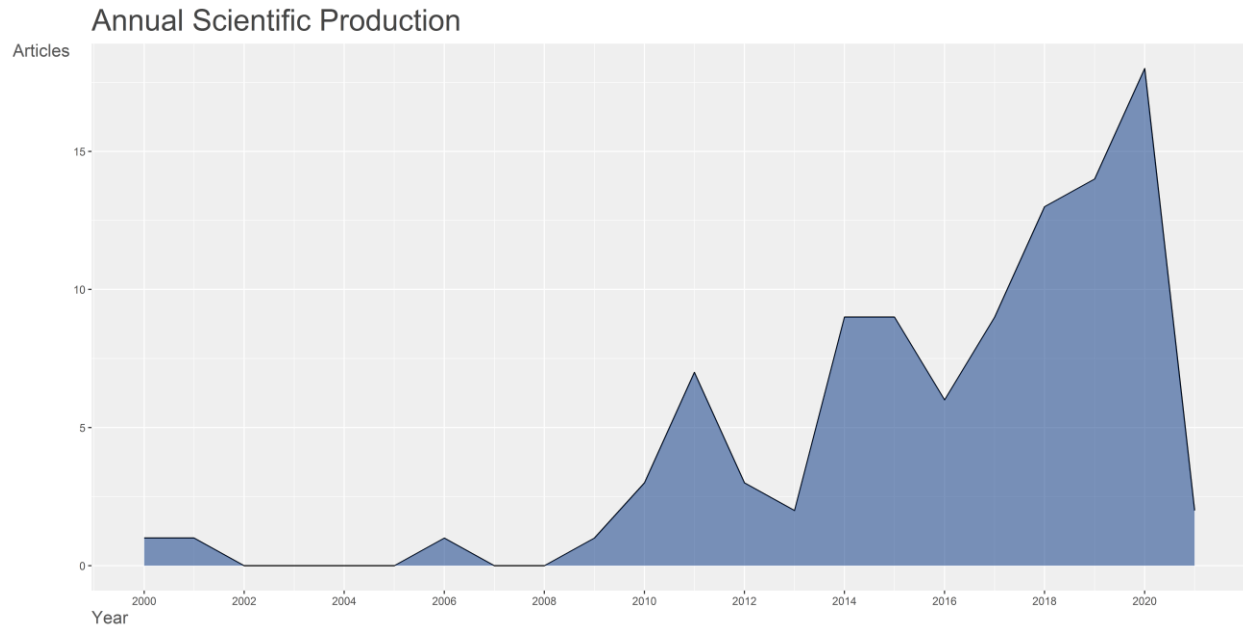


Figure 2: Annual productions

Figure 3 provides a multi-dimensional analysis, illustrating the connection between keywords, countries, and affiliated institutions involved in studies related to audit committees and governance topics. On the left, the figure highlights critical concepts such as audit quality, corporate governance, earnings management, and auditor independence. Moving towards the center, the diagram shows that countries such as the United States, the UK, and China are the leading contributors to this field. The right side of the figure presents the affiliated institutions, with prominent universities such as Yonsei University, Curtin University, and Nankai University playing a significant role. The interlinking lines represent the association between the key terms, contributing countries, and their respective institutions, reflecting the global collaboration and diverse research contributions in this domain.

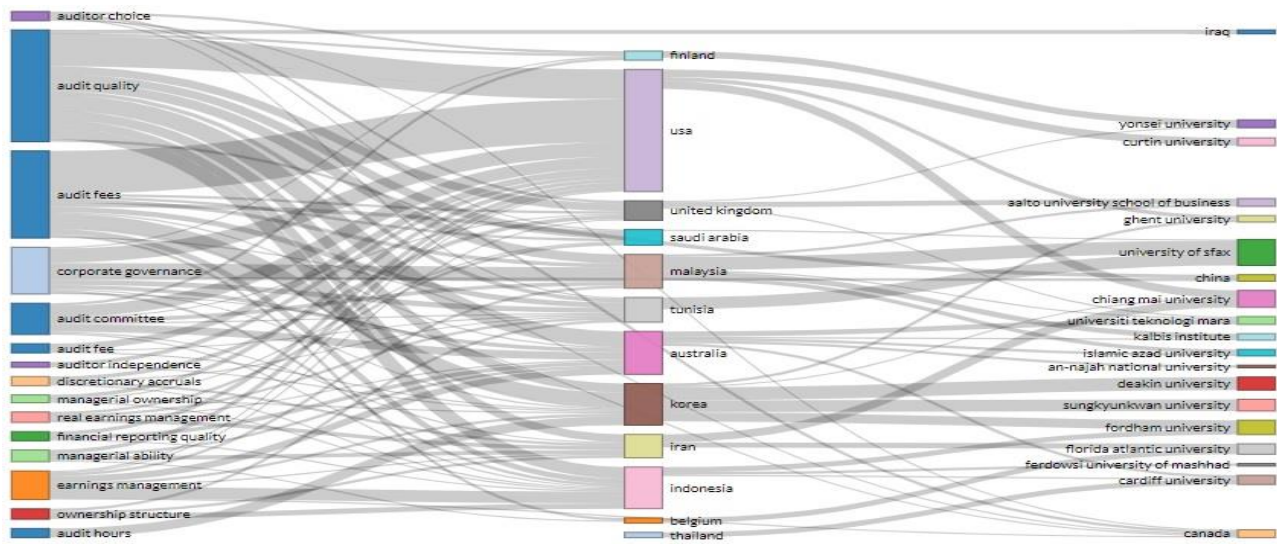


Figure 3: Influential aspects of literature

Influential Aspects of TMT Characteristics and Audit Quality

Core journals

The rankings of journals based on Bradford Law are presented in Table 3, which categorizes the journals into three distinct zones. According to this division, Zone 1 represents the core and most valuable journals, while Zone 2 and Zone 3 are progressively less productive. As shown in the table, 7 journals are classified in the highly productive Zone 1, such as the Managerial Auditing Journal and the International Journal of Auditing. Zone 2 contains the remaining journals, including the Asian Review of Accounting and the Australasian Accounting, Business, and Finance Journal. The most important journals in the subject are identified with the aid of this ranking, providing insight into the distribution of significant contributions across different publications.

Table 3: Journal rankings according to Bradford law

SOURCES	Rank	Freq	CumFreq	Zone
MANAGERIAL AUDITING JOURNAL	1	7	7	Zone 1
INTERNATIONAL JOURNAL OF AUDITING	2	5	12	Zone 1
ACCOUNTING REVIEW	3	4	16	Zone 1
ADVANCES IN ACCOUNTING	4	4	20	Zone 1
AUDITING	5	4	24	Zone 1
JOURNAL OF APPLIED BUSINESS RESEARCH	6	4	28	Zone 1
REVIEW OF ACCOUNTING AND FINANCE	7	4	32	Zone 1
ACCOUNTING HORIZONS	8	2	34	Zone 1
ASIAN REVIEW OF ACCOUNTING	9	2	36	Zone 2
AUSTRALASIAN ACCOUNTING, BUSINESS AND FINANCE	10	2	38	Zone 2

The rise in publications by the leading journals is seen in Figure 4. Regression analysis is used with a time plot or scatter plot for assistance. There has been significant growth in the international journal of auditing, which decreases from time to time. There is a decline in the review of accounting and finance, and in 2018, there was significant growth. High growth in managerial auditing journal in 2016 and gradually decreased. In 2016, there was significant growth in both auditing and accounting review. There has been a Declining trend in advances in accounting from 2016 to 2018.

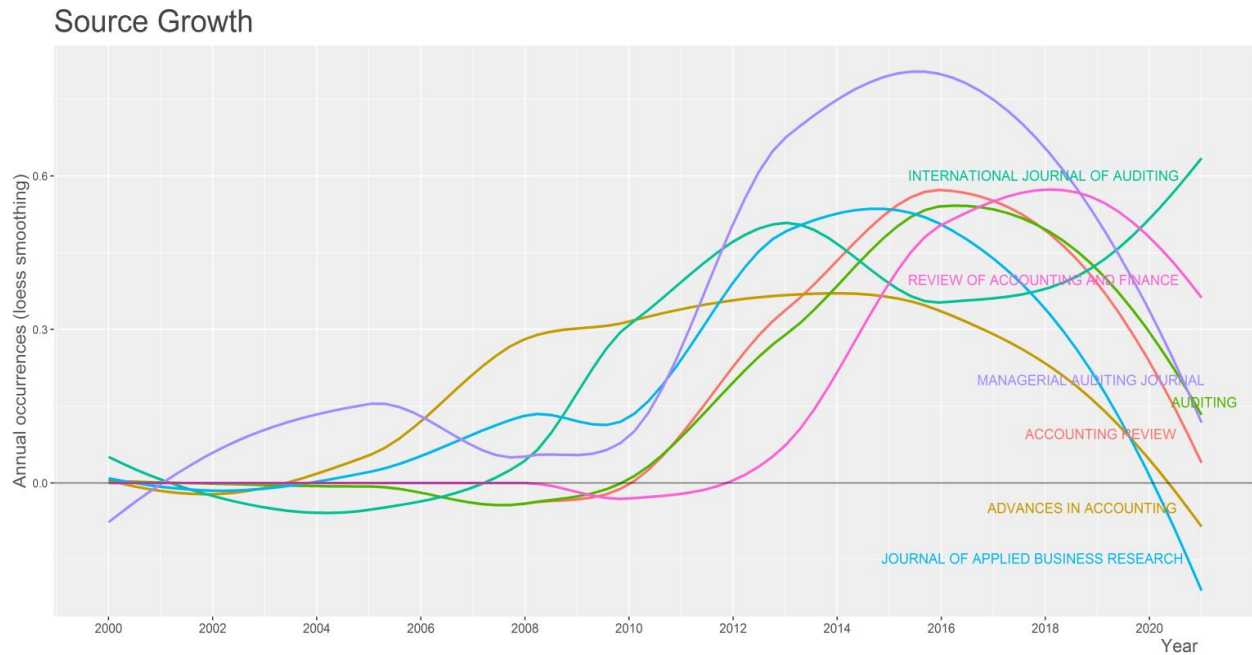


Figure 4: Source Growth

Core journal articles

This section highlights the leading articles in TMT characteristics and audit quality. Table 4 contains a list of the top 10 articles that have been cited worldwide. The O'SULLIVAN article, investigated the effect of board ownership and composition on audit quality, is at the top of the list. In this article, he uses the evidence of large UK companies. YATIM P 2006 paper is on the second is related to corporate governance, ethnic background, and audit fees in Malaysian listed companies. BECK MJ is another paper related to who is in charge—audit committee versus CEO power. INAAM J is another paper in a table related to audit committee efficacy, audit quality, and earnings management. BOWLIN KO is another paper on the list that describes auditor rotation, professional skepticism, and interconnection with managers regarding audit quality.

Table 4: Top 10 globally cited articles

Paper	DOI	Total Citations
O'SULLIVAN N, 2000, BR ACCOUNT REV	10.1006/bare.2000.0139	135
YATIM P, 2006, MANAGE AUDIT J	10.1108/02686900610680530	127
KRISHNAN GV, 2015, AUDITING	10.2308/ajpt-50985	75
BECK MJ, 2014, ACCOUNT REV	10.2308/accr-50834	66
INAAM Z, 2016, INT J LAW MANAGE	10.1108/IJLMA-01-2015-0006	35
BOWLIN KO, 2015, ACCOUNT REV	10.2308/accr-51032	33
NISKANEN M, 2011, INT J AUDIT	10.1111/j.1099-1123.2010.00422.x	32
AL-AJMI J, 2009, ADV ACCOUNT	10.1016/j.adiaac.2009.02.005	32
KHALIL M, 2016, J EMERG MARK FINANCE	10.1177/0972652715623701	28
KANNAN YH, 2014, AUDITING	10.2308/ajpt-50666	28

Core words

The most frequently used words in the selected studies are displayed in Table 5. The table is broken down into four sections: the abstract, title, author's keywords, and keywords plus. This table categorizes critical terms related to audit quality, corporate governance, earnings management, and other relevant topics. The term "audit quality" appears 44 times, making it one of the most commonly mentioned concepts, followed by "audit fees" and "corporate governance." The right column further expands on the specific occurrences of individual words such as "audit" (121 occurrences) and "quality" (73 occurrences), indicating the prevalent focus on audit-related themes in the literature.

Table 5: Most frequent words

Words	Occurrences	Words	Occurrences	Words	Occurrences
audit quality	44	Audit	121	Audit	636
audit fees	32	Quality	73	Quality	294
corporate governance	19	Fees	32	Fees	182
audit committee	12	Evidence	30	Study	178
earnings management	12	Earnings	21	Management	145
discretionary accruals	5	Management	21	Firms	144
audit fee	4	Governance	20	Earnings	142
financial reporting quality	4	Corporate	19	Auditors	117
managerial ability	4	Managerial	15	Governance	107
managerial ownership	4	Impact	13	Board	102

In Figure 5, AUDIT QUALITY is the most common word. The audit committee is linked with audit quality, board size, etc. All keywords are related to board characteristics and audit quality. The keyword-based word cloud is displayed in Figure 5. The frequency-high terms have larger font sizes. These are the largest since audit quality and costs are mentioned in the literature. Words like corporate governance and earnings management are often used in our literature, so these words are also important. The audit committee is also linked with our literature because we often use this keyword.



Figure 5: Word cloud

Table 5 highlights the top ten AUTHORS based on source impact. Various metrics are used to rank the authors, including the h-index, g-index, m-index, total citations (TC), number of publications (NP), and the year of publication start (PY_start). Authors like PUCHETA-MARTNEZ MC and MUTTAKIN MB lead the list with higher h-index, g-index, and total citations, reflecting their significant contribution to the literature. PUCHETA-MARTNEZ MC, in particular, has the highest citation count (72), indicating the strong impact of their work since 2018. In contrast, other authors, such as ABDULLAH SN, have fewer publications and citations, with their work beginning in 2011.

Table 5: Top 10 authors according to source impact

Author	h_index	g_index	m_index	TC	NP	PY_start
PUCHETA-MARTNEZ MC	5	6	1.25	72	6	2018
MUTTAKIN MB	5	5	0.555555556	543	5	2013
HUSSAINEY K	4	4	0.333333333	260	4	2010
KHAN A	4	4	0.444444444	485	4	2013
KHAN I	3	3	0.5	73	3	2016
MOHAMAD NR	3	3	0.272727273	38	3	2011
SAID R	2	4	0.153846154	257	4	2009
HARYMAWAN I	2	3	0.666666667	38	3	2019
NASIH M	2	3	0.666666667	38	3	2019
ABDULLAH SN	2	2	0.181818182	26	2	2011

Figure 6 provides an occasional view of word expansion along with the word cloud. The figure shows that the word audit quality grew in 2011 and is consistent. The phrase audit fees rose in 2015 and then gradually decreased. Word corporate governance started to grow in 2011 and declined in 2017. The word audit committee has remained smooth throughout all years. Earnings management word also remains smooth.

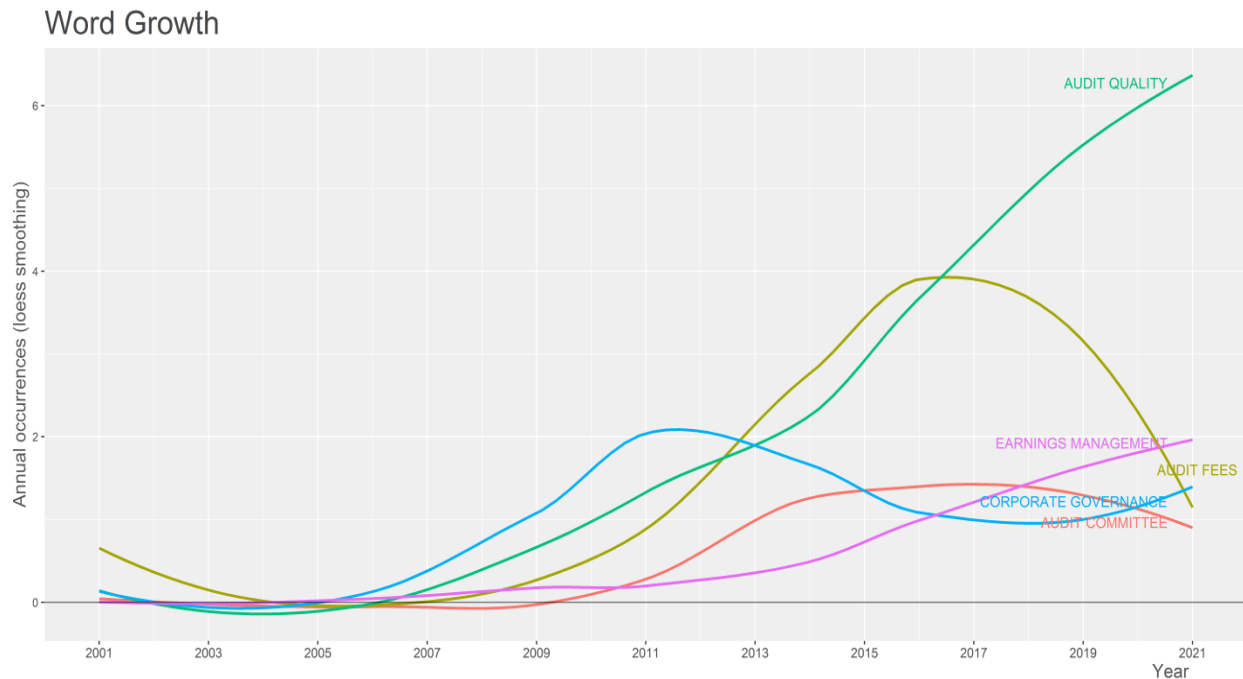


Figure 6: Word growth over

Main Researcher, collaboration, institutions, and nations

This study portion details this literature's research, collaboration, institutions, and nations. The following are the authors who have had more impact on literature. The h index is used to determine ranking. The two data sets are displayed in Table 7; the countries and total citations are on the right side, while the region and frequency are represented on the opposite side. The USA is at the top in terms of frequency, but in the context of total citations, the United Kingdom is first on list. South Korea is second in frequency, and Malaysia is second in total citations. Malaysia is third, Australia is at 4, and so on.

Table 7: Top countries in terms of publications and citations

Region	Freq	Country	Total Citations
USA	57	UNITED KINGDOM	172
SOUTH KOREA	19	MALAYSIA	133
MALAYSIA	18	USA	67
AUSTRALIA	14	AUSTRALIA	42
INDONESIA	14	TUNISIA	35
UK	13	FINLAND	33
TUNISIA	10	BAHRAIN	32
CHINA	8	LEBANON	27
IRAN	8	SAUDI ARABIA	21
SAUDI ARABIA	7	KOREA	19

The most relevant affiliations are described in Figure 7. In this figure, the united states are first on the list related to the number of documents, and then Korea becomes second, and Malaysia is third. Tunisia is fourth, and there is a large part of single-country publications. Then Australia is at 5 and so on.

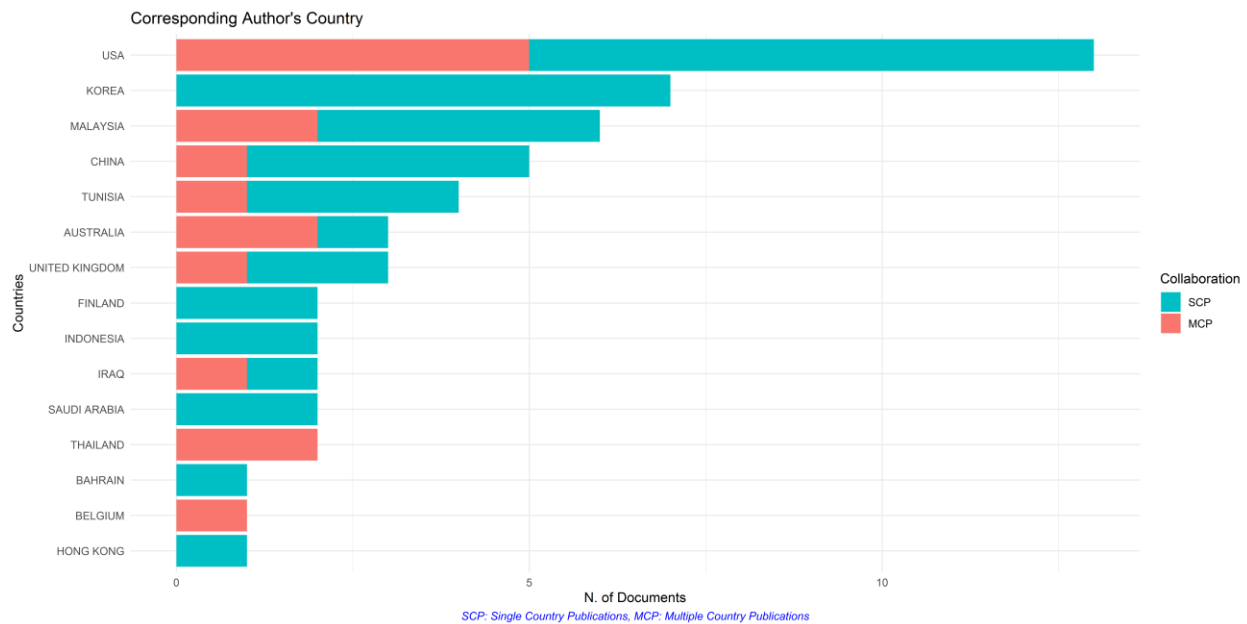
**Figure 7: Most relevant affiliations**

Table 8 represents the information related to the top ten nations with associated authors. America is at the top. American researchers have thirteen papers; five are multi-country publications, and the remaining eight are single-country articles. Malaysia is at number 3 with correlation of 6 studies with 2 MCP and 4 SCP. There are 5 studies of China with 1 MCP and 4 SCP. Tunisia is at number 5 with 4 publications, from which 1 is related to MCP, and 4 is related to SCP.

Table 8: Corresponding author's country

Country	Articles	Freq	SCP	MCP	MCP Ratio
USA	13	0.2097	8	5	0.385
KOREA	7	0.1129	7	0	0
MALAYSIA	6	0.0968	4	2	0.333
CHINA	5	0.0806	4	1	0.2
TUNISIA	4	0.0645	3	1	0.25
AUSTRALIA	3	0.0484	1	2	0.667
UNITED KINGDOM	3	0.0484	2	1	0.333
FINLAND	2	0.0323	2	0	0
INDONESIA	2	0.0323	2	0	0
IRAQ	2	0.0323	1	1	0.5

Our literature is a global topic, but no major collaborations exist. Table 9 addressed this issue, but there are few collaborations observed. The USA collaborated with China on 3 articles, Malaysia collaborated with Australia on 2 articles, and the rest countries collaborated on 2 or 1 article.

Table 9: Collaboration network

From	To	Frequency
USA	CHINA	3
MALAYSIA	AUSTRALIA	2
TUNISIA	SAUDI ARABIA	2
UNITED KINGDOM	EGYPT	2
USA	CANADA	2
USA	KOREA	2
AUSTRALIA	BANGLADESH	1
AUSTRALIA	INDONESIA	1
AUSTRALIA	NEW ZEALAND	1
AUSTRALIA	THAILAND	1

Conceptual framework

With the help of a conceptual framework, we can understand the different themes based on the connections between keywords. First, the literature suggests a co-occurrence network it enables us to assess various research subjects throughout time. To determine the network's centrality, we next place these terms networks on a bi-dimensional matrix known as a "Thematic Map."

Co-occurrence Network

Figure 10 presents the co-occurrence network of keywords. The red cluster represents the primary cluster with the highest centrality, while the blue and green clusters are connected. Each cluster categorizes the literature into different research streams.

The red cluster is the primary cluster that describes the audit quality, audit committee, agency costs, earnings management, and many other terms related to this cluster. The green cluster represents the audit fees, audit effort, audit hours, auditor choice, natural earnings management, and many other linked streams. The blue cluster describes corporate governance. Audit committees, audit fees, and managerial ownership are connected with it.



Figure 8: Co-occurrence network

Thematic Map

Figure 9 shows a thematic map illustrating the co-occurrence of key themes based on their development (density) and relevance (centrality). The motor themes in the upper-right quadrant include discretionary accruals, corporate governance, natural earnings management, and audit fees, indicating they are both well-developed and highly relevant to the field. Themes like auditor independence and internal audit in the upper-left quadrant represent niche themes—well-developed but with lower centrality. In the lower-left quadrant, emerging or declining themes such as board quality and internal audit quality are underdeveloped and less central, suggesting either emerging trends or declining research areas. Lastly, the basic themes located in the lower-right quadrant, such as audit quality and audit hours, are foundational but not as highly developed in the literature. This map categorizes the topics, showing how different themes are interconnected and how central they are to the research domain.

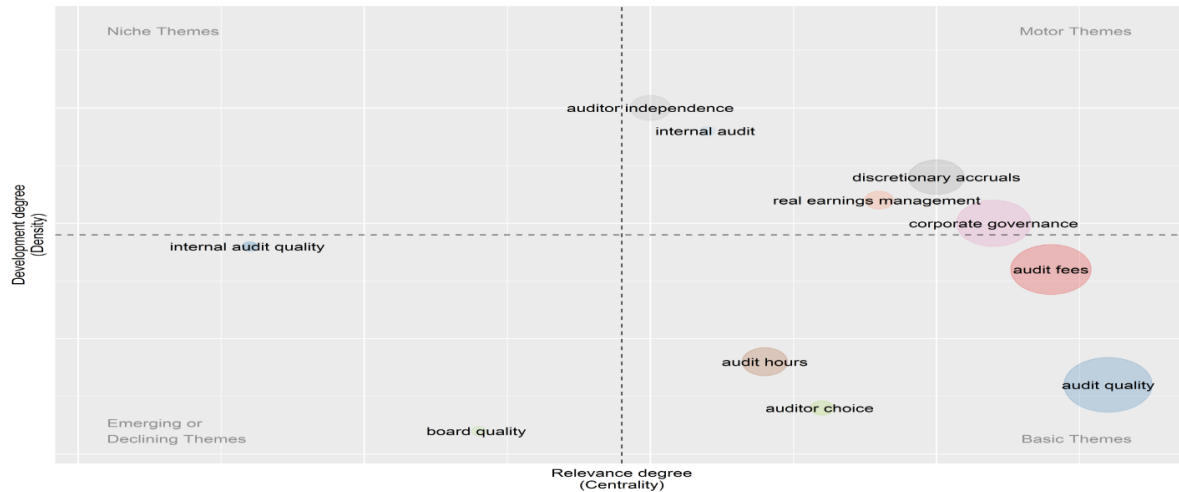


Figure 9: Thematic Map

Thematic Evolution

Following the theme map, Figure 10 illustrates the thematic progression of literature's historical growth. "Biblioshiny" is used to create this. There are four parts to it. The first section covers the years 2000–2014, the second covers the years 2015–2017, the third covers the years 2018–2019, and the last one covers the years 2020–2021. From 2000 to 2014, the literature is about audit fees, audit committees, audit quality, and ownership structure. From 2015 to 2017, the literature was about audit fees. From 2018 to 2019, the literature concerns audit fees, audit quality, and managerial ability. From 2020 to 2021, the literature is about audit quality, fees, and corporate governance.

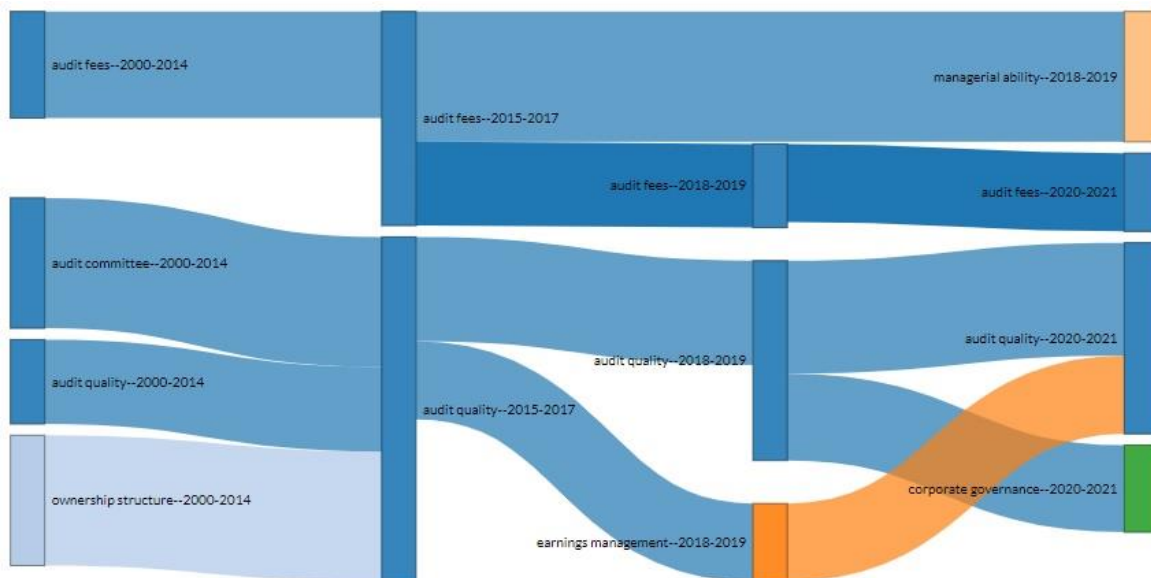


Figure 10: Thematic Evolution

CONCLUSION AND POLICY IMPLICATION

The main objective of this article was to examine the relationship between the characteristics of the Top Management Team (TMT) and audit quality. As highlighted throughout the study, the characteristics of TMTs, including factors such as expertise, diversity, tenure, and risk management, profoundly influence the efficacy of corporate governance and, consequently, the quality of audits. The findings underscore the importance of TMT composition in boosting transparency, accountability, and high standards in financial reporting. This study has identified the critical themes and trends in the field through various analyses, including the thematic maps and keyword co-occurrence networks. For example, the co-occurrence network (Figure 10) demonstrated that the most central themes in the literature are connected to audit quality, corporate governance, and audit fees, with clusters of research streams providing further insight into how these topics intersect. The thematic map categorization revealed that issues such as auditor independence and corporate governance are central to the discourse and well-developed, while themes like board quality and internal audit quality are emerging and hold potential for further exploration. The practical implications of this study are substantial, especially for industries and sectors such as banking and large-scale enterprises, where audit quality is essential in ensuring financial stability and compliance. The findings suggest that by strategically shaping the TMT—through increasing board size, enhancing diversity, and focusing on leadership expertise—organizations can significantly improve their audit quality, reduce aggressive earnings management, and strengthen their overall governance structure. Moreover, as corporate governance and audit quality are interconnected, organizations must align TMT characteristics with audit requirements to achieve the highest standards in financial reporting. In conclusion, this research provides a valuable understanding of determinants contributing to enhanced audit quality, with TMT characteristics being a key determinant. By answering the research questions related to influential aspects, trends, and objectives, this article offers a clear path forward for both academic research and practical applications. As the global business environment continues to evolve, the importance of robust audit processes and effective governance will only grow, and understanding the role of TMT characteristics in accomplishing these objectives is essential for long-term business success.

Policy Implications

The results of this investigation on the relationship between Top Management Team (TMT) characteristics and audit quality have several important policy implications for regulators, corporate boards, and industry stakeholders. First, policymakers should consider setting guidelines that encourage the strategic composition of TMTs. Emphasizing the inclusion of members with diverse expertise and backgrounds can enhance decision-making and oversight capabilities. Regulatory frameworks could include recommendations or requirements for diversity and expertise within TMTs to strengthen governance practices. Second, to improve audit quality, policies could be implemented that outline minimum standards for board and audit committee compositions, such as mandatory inclusion of independent directors with financial expertise. This

can be particularly impactful in sectors like banking and large enterprises where financial stability is crucial. Third, policies that reinforce the independence of external auditors from the influence of TMTs are essential. This could involve stricter regulations on the rotation of audit firms and limitations on the hiring of auditors who have previous relationships with TMT members to prevent conflicts of interest.

Future Agendas

Future trends in the relationship between Top Management Team (TMT) characteristics and audit quality will likely focus on several emerging areas. First, with an increasing emphasis on diversity, future studies will explore the impact of gender, cultural, and cognitive diversity within TMTs on audit quality and overall corporate governance. Second, integrating technology in auditing, such as using artificial intelligence (AI) and blockchain, may lead to deeper investigations into how tech-savvy TMTs influence audit quality and transparency in financial reporting. Third, as sustainability and ESG (Environmental, Social, Governance) practices become central to corporate governance, research will likely examine how TMTs with expertise in sustainability affect the quality and integrity of ESG audits. Additionally, the global shift towards remote and hybrid work models will prompt future studies to explore how TMT characteristics adapt to these models and their effect on maintaining audit quality and internal controls. Lastly, the evolving nature of corporate governance may encourage research into flexible, dynamic TMT structures and their ability to respond to emerging risks, regulatory changes, and audit quality challenges in real-time. These future trends reflect the growing complexity of governance and the need for TMTs to evolve in response to changing business environments, technological advancements, and regulatory demands.

Limitations of Study

The study faces several limitations. First, while it uses Scopus and Web of Science data, the analysis is restricted to published literature, which may not capture internal TMT dynamics like decision-making or informal interactions. Second, the findings may lack generalizability as most research is geographically focused, with variations in governance across regions. Third, rapid technological advancements, such as AI and blockchain, make it challenging to assess the long-term impact of TMT characteristics on audit quality. Lastly, measuring subjective TMT traits, like overconfidence, can lead to inconsistencies, requiring more comprehensive and diverse research to explore these relationships fully.

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